

Application Serial No. 10/829,509
Attorney Docket No. 60027.0345US01/BS030284

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for on demand selective rerouting of logical circuit data in a data network, the method comprising:

identifying a failed logical circuit in the data network;

displaying at least one logical failover circuit for rerouting data from the identified failed logical circuit, wherein displaying at least one logical failover circuit for rerouting data from the failed logical circuit comprises generating a menu displaying the at least one logical failover circuit for selection;

receiving a selection of a logical failover circuit from the displayed at least one logical failover circuit; [[and]]

(a) determining whether a utilization of the selected logical failover circuit exceeds a threshold utilization indicative of congestion susceptibility;

(b) if the utilization is less than the threshold utilization, then rerouting the logical circuit data from the failed logical circuit to the selected logical failover circuit;

(c) if the utilization exceeds the threshold utilization, then requesting the selection of an alternative logical failover circuit from the menu; and

rerouting the data from the failed logical circuit to the selected logical failover circuit.

2. (Canceled)

3. (Currently Amended) The method of claim 1 [[2]], further comprising:

~~(a) after receiving a selection of the at least one logical failover circuit from the menu, determining whether a utilization of the selected logical failover circuit exceeds a threshold utilization indicative of congestion susceptibility;~~

~~(b) if the utilization is less than the threshold utilization, then rerouting the~~

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~~logical circuit data from the failed logical circuit to the selected logical failover circuit;~~

~~_____ (c) if the utilization exceeds the threshold utilization, then requesting the selection of an alternative logical failover circuit from the menu; and~~

~~(d) repeating the operations (a)-(c) for each logical failover circuit selected from the menu.~~

4. (Original) The method of claim 1, wherein the at least one logical failover circuit comprises a dedicated failover logical connection in a failover data network.

5. (Original) The method of claim 1, wherein the at least one logical failover circuit comprises an existing logical connection in the data network.

6. (Original) The method of claim 1, wherein the logical circuit is identified by a logical circuit identifier in the data network.

7. (Original) The method of claim 6, wherein the logical circuit identifier is a data link connection identifier (DLCI).

8. (Original) The method of claim 6, wherein the logical circuit identifier is a virtual path/virtual circuit identifier (VPI/VCI).

9. (Original) The method of claim 4, wherein the dedicated failover logical connection comprises a network-to-network interface.

10. (Original) The method of claim 1, wherein the logical failover circuit is a permanent virtual circuit.

11. (Original) The method of claim 1, wherein the logical failover circuit is a switched virtual circuit.

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12. (Original) The method of claim 1, wherein the data network is a frame relay network.

13. (Original) The method of claim 1, wherein the data network is an asynchronous transfer mode (ATM) network.

14. (Currently Amended) A system for on demand selective rerouting of logical circuit data in a data network, comprising:

a network device for communicating status information for a logical circuit in the data network, the logical circuit comprising a communication path for communicating data;

a logical element module, in communication with the network device, for receiving the status information for the logical circuit in the data network; and

a network management module, in communication with the logical element module, for:
identifying a failure in the logical circuit based on the status information;
upon identifying the failed logical circuit, generating a menu displaying at least one logical failover circuit for rerouting data from the failed logical circuit;

receiving a selection of a logical failover circuit displayed in the menu; [[and]]

(a) determining whether a utilization of the selected logical failover circuit exceeds a threshold utilization;

(b) if the utilization is less than the threshold utilization, then rerouting the logical circuit data from the failed logical circuit to the selected logical failover circuit;

(c) if the utilization exceeds the threshold utilization, then requesting the selection of an alternative logical failover circuit from the menu; and

rerouting the data from the failed logical circuit to the selected logical failover circuit.

15. (Original) The system of claim 14, further comprising a remote access module for sending and receiving commands from the network management module.

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16. (Currently Amended) The system of claim 14, wherein the network management module is operative to:

~~(a) after receiving a selection of the at least one logical failover circuit from the menu, determine whether a utilization of the selected logical failover circuit exceeds a threshold utilization;~~

~~(b) if the utilization is less than the threshold utilization, then reroute the logical circuit data from the failed logical circuit to the selected logical failover circuit;~~

~~(c) if the utilization exceeds the threshold utilization, then request the selection of an alternative logical failover circuit from the menu; and~~

~~(d) repeat the operations (a)-(c) for each logical failover circuit selected from the menu.~~

17. (Original) The system of claim 14, wherein the at least one logical failover circuit comprises a dedicated failover logical connection in a failover data network.

18. (Original) The system of claim 14, wherein the at least one logical failover circuit comprises an existing logical connection in the data network.

19. (Original) The system of claim 14, wherein the logical circuit is identified by a logical circuit identifier in the data network.

20. (Original) The system of claim 19, wherein the logical circuit identifier is a data link connection identifier (DLCI).

21. (Original) The system of claim 19, wherein the logical circuit identifier is a virtual path/virtual circuit identifier (VPI/VCI).

22. (Original) The system of claim 17, wherein the dedicated failover logical connection comprises a network-to-network interface.

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23. (Original) The system of claim 14, wherein the logical failover circuit is a permanent virtual circuit.

24. (Original) The system of claim 14, wherein the logical failover circuit is a switched virtual circuit.

25. (Original) The system of claim 14, wherein the data network is a frame relay network.

26. (Original) The system of claim 14, wherein the data network is an asynchronous transfer mode (ATM) network.

27. (Original) The system of claim 14, wherein the status information comprises trap data generated by the network device, wherein the trap data indicates the status of at least one logical connection of the logical circuit.

28. (Currently Amended) In a computer system having a graphical user interface including a display and a user interface selection device, a method of providing and selecting from a menu on the display at least one logical failover circuit for rerouting data from a failed logical circuit in a data network, the method comprising:

displaying a failed logical circuit on a map on the display, the map including a current status of at least one logical circuit in the data network;

receiving a map entry selection signal indicative of the user interface selection device pointing at the map on the display, and, in response to the selection signal, displaying the menu including at least one entry comprising the at least one logical failover circuit for rerouting the data from the displayed failed logical circuit; [[and]]

receiving an execution signal indicative of a user selecting the menu entry comprising the at least one logical failover circuit; [[.]]

after receiving an execution signal, determining whether a utilization of the selected logical failover circuit exceeds a threshold utilization;

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if the utilization is less than the threshold utilization, then reroute the logical circuit data from the failed logical circuit to the selected logical failover circuit;

if the utilization exceeds the threshold utilization, then request the selection of an alternative logical failover circuit from the menu; and

in response to the execution signal, rerouting the data from the failed logical circuit to the selected logical failover circuit.